PHILLIPS

Qwik Tech Tips

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Are Your Batteries Fully Charged?

A lot is riding on your battery system. When downtime occurs because of battery failure, it can result in a lot of undue stress to both you and your customers. A variety of factors can contribute to battery failure, from extreme hot and cold temperatures to undersized batteries and increased power draw from liftgates and other motor driven accessories. Your batteries are under more pressure than ever.

To prevent increased battery strain, avoid running more liftgate cycles per trip than your batteries are equipped to handle. Another way to avoid battery depletion is to make sure that liftgate charge cables are properly maintained. Broken pins or improper coupling when mating can lead to an improper connection which effects battery life.

Battery performance can also be affected by the charging process, which can influence the amount of charge the trailer batteries receive. The way the process works is the tractor batteries are charged by the alternator. The tractor batteries then supply power to the trailer batteries through the charge cable. The tractor batteries supply approximately 13 volts. The current then travels the combined length from the tractor batteries to the trailer batteries, which can range from 40' to 60'. As this is occurring the charge weakens due to voltage drop. The greater the distance the current has to travel from the tractor batteries to the trailer batteries the greater the voltage drop will be. Using a charge cable without a ground wire will further weaken the charge.

This weakened charge is only enough voltage to maintain the battery power supply rather than fully charging the batteries. For optimal battery life a commercial battery must maintain as close to a full charge as possible. The batteries are not designed to be run down to a low charge state, which can range between 10 to 12 volts. Unfortunately, because of the demands placed on trailer batteries today, it is common place for batteries to be undercharged.

PERMALOGIC™ Smart-Charge

A solution to this problem would be to use an onboard trailer power management system, which can provide the optimal 14.4 volts needed to keep the trailer batteries at a full state of charge. To achieve this, power is supplied to the trailer power management system battery charger through the 7-way auxiliary wire, which can accept voltage greater than 8 volts to energize the battery charger. The battery charger is then capable of converting that voltage into a 14.4 volt charge directly to the trailer batteries, powering them to a proper operational full state of charge. Batteries that are fully charged can easily run motor driven accessories such as a hoist or liftgate without running the risk of battery failure.

PERMALOGIC™ TC PLUS

It's essential to keep batteries working properly because if your batteries don't work, neither do you. Although charge cables do a good job at maintaining battery power, because of voltage drop you can't rely on them alone to provide a full charge to the trailer batteries. Along with proper motor driven accessory usage and regular charge cable maintenance, a key way to prevent undercharged trailer batteries is to utilize a trailer power management system. This can deliver the 14.4 volts necessary to provide a full charge, preventing undercharged batteries and the problems they can cause.

FEATURED PRODUCT

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- For optimal battery life, a commercial battery must maintain as close to a full charge as possible.
- A key way to prevent undercharged trailer batteries is to utilize a trailer power management system, which can deliver the 14.4 volts needed to provide a full charge.